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Project-based learning in out-of-class activities: flipped learning based on communities created in real and virtual spaces

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Abstract

This study focuses on the possibility of students creating communities in both real space (unoccupied classrooms) and virtual space using collaborative software. In the summer of 2016, a project-based learning initiative was launched to revitalise an unoccupied classroom in University of Marketing and Distribution Sciences; four first-year undergraduate students were selected to plan attractive events involving students across academic years and nationalities. Because it was conducted as an out-of-class learning experience, students, as coordinators, had to overcome space and time limitations in facilitating their projects. The qualitative data collected from interviews show the condition under which communities created in real and virtual spaces contribute for involving students in the revitalisation of the unoccupied classroom.

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Keywords: Project-based learning; out-of-class study; flipped learning; collaborative software program; community of practice

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1. Introduction

1.1. Background of Japan

In the coming years, Japan's population will shrink dramatically because of the ageing of the Japanese society and country's declining birth rate. The more the population shrinks, the more the number of unoccupied houses increases, along with the number of problems accompanying these trends. A similar phenomenon seems to be

occurring in universities. Recently, universities have witnessed an increase in the number of unoccupied classrooms because of a decrease in students due to the decline in the college-aged population. For example, the number of college-aged people was 2.05 million in 1992, and it is expected to reach 1.17 million in 2018 [1].

This study was conducted at a university that showed a decrease in its student population and an increase in the number of unoccupied classrooms. The university launched a competition to revitalise an unoccupied classroom in the summer of 2016. The competition was designed as several out-of-class activities consisting of two parts: the first part concerned the use of an unoccupied classroom on the campus, and the second part pertained to an effective way of managing unoccupied classroom space on the campus. The winner of the competition was supposed to revitalise the unoccupied classroom as a coordinator.

1.2. Out-of-class study time

According to the National Survey of Student Engagement [2], Japanese students, on average, commit fewer hours per week to study compared with students in the U.S. For example, Fig. 1 (a) shows that approximately 60% of the students in the U.S. spend more than 11 hours per week on out-of-class study, whereas approximately 60% of Japanese students spend only 1 to 5 hours per week. For the university targeted in this study, more than 30% of students spend 0 to 1 hour per week on out-of-class study, although 64% spend 1 to 5 hours per week, which is higher than the average for Japanese students overall (57.1%).

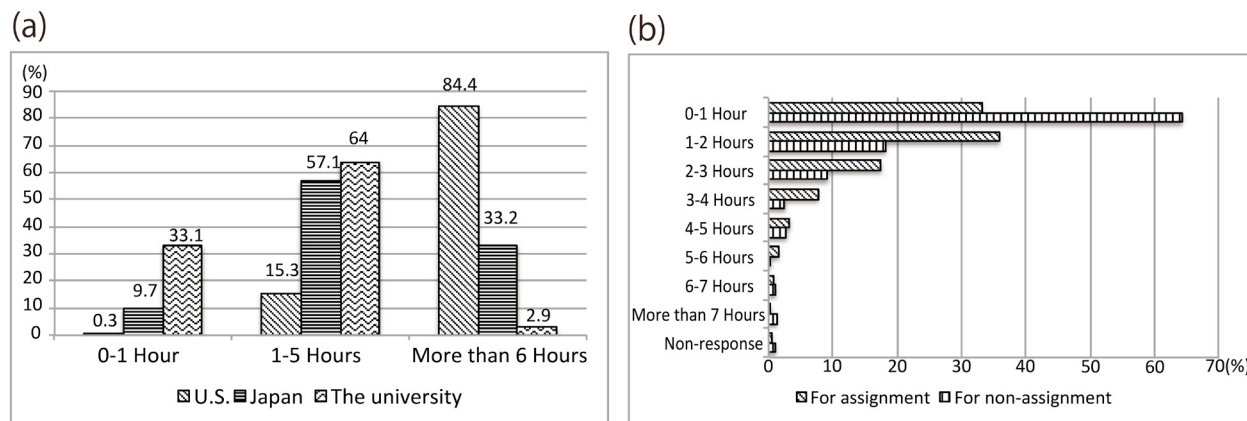
Fig. 1 (b) shows the out-of-class study hours and purposes of study (assignment or non-assignment activities) for students in this university. Approximately 70% of students study 0 to 2 hours for an assignment, whereas more than 60% study up to 1 hour for autonomous or non-assignment activities.

These statistics indicate a crucial problem faced by Japanese universities, that is, the insufficient time spent by Japanese students' on out-of-class study. Therefore, since a policy designed to substantiate the credit system was established in 1998, the Council for Higher Education in Japan has been tracking the out-of-class study time of students.

Fig. 2 (a) shows the total number of students who used the library from 2011 to 2015. Fig. 2 (b) shows the total number of students who used the media centre from 2011 to 2015. Except in 2013 and 2014, the number of students using the media centre does not show any major changes.

Fig. 3 shows (a) the annual (2015, 2016) and monthly changes in the total number of students using the university library and (b) annual (2015, 2016) and monthly changes in the total number of students using the media centre at the university. The final examination periods (at the end of June and of January) mark the times of peak usage.

The university renewed the layout and furnishing of its library and media centre and, in 2016, and launched a learning commons – which lets students interact, read, and study individually and collectively using books, references, and the Internet in the library – to increase the number of students who use both the library and media centre.



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